

June 24, 2022

Tracy Riendeau, CVT
Investigator
Arizona State Veterinary Medical Examining Board
1740 W. Adams Street, Suite 4600
Phoenix, AZ 85007

Re: *Elizabeth Munhall, DVM # 22-131*

Dear Ms. Riendeau:

Thank you for the opportunity to respond to the Board's inquiry into this matter.

On August 14, 2021, Carie Bikson, DVM, conducted a comprehensive examination of Toby with dental cleaning under anesthesia. Toby is a Maltese male, date of birth July 12, 2013. Before the August 14, 2021 dental cleaning, Dr. Bikson obtained a CBC, electrolytes, and liver enzymes, which showed, among other things, that Toby's liver enzymes were within normal limits.

On July 15, 2019 and July 16, 2020, Dr. Bikson performed Toby's dental cleanings under general anesthesia, and he tolerated both procedures well and had no GI related complications postoperatively. On August 14, 2021; July 15, 2019; and July 16, 2020; Dr. Bikson used the *same medication (Propofol [the induction agent], Midazolam, and Butorphanol) at approximately identical dosages* to anesthetize Toby. Also, Toby had normal liver enzymes on July 15, 2019 and July 16, 2020.

On July 15, 2019, Toby received 0.2 mLs IV of Butorphanol, 0.2 mLs IV of Midazolam, and 2.5 mLs IV of Propofol. On July 16, 2020, Toby received 0.21 mLs IV of Butorphanol, 0.21 mLs IV of Midazolam, and 3.0 mLs IV of Propofol. On August 14, 2021, Toby received 0.21 mLs IV of Butorphanol, 0.21 mLs IV of Midazolam, and 3.0 mLs IV of Propofol.

On August 15, 2021, Toby's owner, Pat Johnson, called the office and spoke with J. Delucia, CSC, who documented the following:

O called concerned about P. P was in for a dental Saturday the 14th and Dr. Bikson said if P continues to throw up to bring P in. P won't keep any food down since Saturday. O did try bland diet.

On August 17, 2021, Toby presented to Banfield with vomiting. My physical examination of Toby revealed that he was euhydrated, mucous membranes were pink, and his abdomen palpated soft and non-painful with no organomegaly or masses appreciated. I discussed my physical exam findings and the potential causes of gastroenteritis post-COHAT with Ms. Johnson. The causes of gastroenteritis post-COHAT included: post-anesthetic reaction vs. inflammation vs. infectious (bacterial, viral, fungal, parasitic) vs. dietary indiscretion vs. extra-

alimentary disease. I recommended further work-up with bloodwork and imaging (3V abdominal x-rays and abdominal ultrasound). Ms. Johnson said that Dr. Bikson had ordered bloodwork for Toby just before his August 14, 2021 COHAT procedure and that Dr. Bikson did not relate any concerns about his lab results. I informed Ms. Johnson that even though the labs appeared normal on the day of surgery, they could change in a matter of hours or days, but Ms. Johnson verbally declined additional tests.

I informed the technician on the case that the owner had elected to decline the recommended diagnostics (blood work, imaging) and instructed the technician to check "declined the recommended services" within the drop-down menu on PetWare. I recommended outpatient care for Toby with oral Cerenia, and Ms. Johnson approved the outpatient therapy. I asked Ms. Johnson to bring Toby back to the Clinic if he failed to improve or his symptoms worsened. I explained to Ms. Johnson that Cerenia is a potent anti-nausea medication and if Toby continued to vomit on the drug, he could have a severe or yet-to-be diagnosed underlying illness. I asked Ms. Johnson to inform us if Toby's failed to improve so we could either proceed with the recommended diagnostics or send Toby to a referral hospital for further evaluation. Ms. Johnson verbally expressed her understanding.

On August 18, 2021, Ms. Johnson presented Toby for an examination with Dr. Duthie.

On August 19, 2021. Ms. Johnson called the Clinic to report that Toby was still lethargic, not eating, and had refused the probiotic. Ms. Johnson wanted to discuss the next steps, including doing the bloodwork we had reviewed on August 17, 2021.

On August 20, 2021, Toby presented again to the Clinic, and his symptoms had not improved. My physical examination of Toby revealed icteric mucous membranes and ventral abdomen. I discussed my physical exam findings on the possible causes of icterus with Ms. Johnson. I recommended initial bloodwork as Toby had bloodwork available on his Banfield plan. I told Ms. Johnson that depending on the initial lab findings; he could need additional diagnostics (abdominal x-rays, abdominal ultrasound, etc.) to obtain a definitive diagnosis. Ms. Johnson expressed her verbal understanding and approved the bloodwork (CBC, IOF). The initial lab results revealed elevated liver values, consistent with acute hepatitis. I reviewed the bloodwork results with Ms. Johnson in the lobby because we were still under COVID-19 protocols.

While reviewing the lab results with Ms. Johnson, her daughter, Kimberly Christensen, entered the lobby, raised her voice, and accused me of killing Toby. I attempted to diffuse the situation and calmly apologized to Ms. Christensen. I explained that I had not performed Toby's COHAT and could only discuss what Dr. Bikson and the staff documented in the medical notes regarding his care on August 14, 2021. I reviewed Toby's pre-anesthetic panel with Ms. Johnson and Ms. Christensen. Based on my chart review, I said that Toby had not suffered any postoperative complications and recovered uneventfully from the COHAT.

As I attempted to explain to Ms. Christensen my diagnostic workup and Plan of Care for Toby, she interrupted me and said all we did for Toby was give him some pills. She also threatened to sue me for malpractice. I told Ms. Christensen that when Toby presented on August

17, 2021, I discussed the possible etiologies for Toby's gastroenteritis with her mother and recommended further diagnostics. Unfortunately, Ms. Johnson declined further work up and elected supportive outpatient care as Toby had just had bloodwork performed on August 14, 2021. Ms. Christensen turned to her mother and asked if she had declined the services. Ms. Johnson said she could not recall what she did or did not approve on August 17, 2021.

On August 20, 2021, I discussed the need for imaging with Ms. Johnson and Ms. Christensen. Ms. Christensen declined my imaging request, stated she would seek outside care for Toby, and would not return to Banfield. The technician declined the ultrasound on the drop-down menu on Petware once Ms. Christensen refused further treatment for Toby. This action cannot be undone. I informed Ms. Johnson and Ms. Christensen that Toby should undergo imaging and consultation with a radiologist even if they did not want it performed at Banfield. I again offered to perform imaging at Banfield, and Ms. Johnson gave her consent.

I discussed with Ms. Johnson the limitations of a general practitioner vs. a Board certified radiologist reviewing an A-FAST scan. I also said that additional imaging, such as an abdominal x-ray, might be necessary, and Ms. Johnson expressed verbal understanding. I performed the A-FAST scan and noted mild sludge in his gallbladder. Also, Toby's liver appeared mildly enlarged. I discussed the results of the A-FAST examination and potential etiologies with Ms. Johnson. I recommended a referral to an Internal Medicine/Infectious Disease specialist, Dr. Russell Greene. I provided Dr. Greene's consultation and work-up fee. We contacted Dr. Greene's office, but the office was closed until August 23, 2021. I recommended a referral to another Internal Medicine specialist and an ER referral. Ms. Johnson said she would follow up with the Phoenix Veterinary Referral on August 21, 2021. On August 20, 2021, I prescribed Denamarin for Toby.

On August 21, 2021, Ms. Johnson took Toby to Phoenix Veterinary, and the specialist performed an abdominal ultrasound on him.

On August 17, 2021, Toby did *not* have polyuria or polydipsia, hepatic encephalopathy, ascites, hepatomegaly, or hepatodynia.

On October 17, 2021, Dr. Bikson prepared the following progress note:

Fax received from PVREC
Clinician: Rebecca Rittenberg, DVM
Diagnosis: Elevated liver enzymes after acute hepatopathy, cause open (suspect acute hepatopathy secondary to anesthesia versus midazolam versus other).

Diagnostics Performed: CBC/Chem/Lytes: no change in liver enzymes last recheck (AST 246, ri:15-66; ALT 1625, ri 12-118; ALKP 1864 ri: 5-131, GGT 149, ri: 1-12; cholesterol 1332, ri: 92-324).

Diagnostics Pending: T4.

Assessment: Toby's bloodwork is mildly improved from last time, but I would anticipate better improvement at this time if we were recovering from a single event. Given these findings, I recommend adding on a thyroid test to his bloodwork which is pending. Given these results, my plan is to continue his Denamarin tablets for 1 month, then recheck him. If his values are still the same we will need to consider further workup for the cause of his liver enzymes.

Medications: Denamarin 225 mg tablets: give one tablet by mouth every 24 hours.

Recommended Recheck: Please recheck in one month. At that time, we will repeat CBC/Chem/Lytes, an abbreviated AUS, and consider further workup pending if his values are persistently elevated.

(Emphasis added).

On August 17, 2021, Toby's sclera showed no signs of jaundice. His abdomen was soft, non-tender, and without any masses or organomegaly.

On August 20, 2021, my differential diagnosis included ruling out liver disease versus biliary disease versus metabolic disease versus neoplasia versus other. I ordered an A-FAST scan and documented that it showed the following:

No free fluid observed. No obvious masses observed. Kidneys are unremarkable. Spleen unremarkable. Stomach distended and unremarkable. Mild sludge observed in gallbladder. Mild liver enlargement observed.

On August 20, 2021, I documented the following in pertinent part:

Discussed bloodwork findings with owner. Discussed concerns for elevations in liver and biliary system values. Discussed underlying etiologies (liver disease vs. metabolic disease vs. infection vs. toxin). Recommended additional diagnostics to rule out underlying causes such as A-FAST scan. Discussed with owner limitations of A-FAST scan. Owner approved. Discussed with owner based on results of A-FAST performed in hospital, a complete abdominal ultrasound with outside specialist may be recommended. Discussed outside specialist fee with Dr. Greene (~\$500). Discussed A-FAST scan with owner. Recommend referral. Informed owner we have already contacted Dr. Greene's office and unfortunately, the office will not be open until 8/23. Recommend referral to internal medicine specialist or ER referral. Owner reported she is taking pet to Veterinary Referral tomorrow 8/21.

On August 14, 2021, Toby received anesthesia from 0935 to 0952 hours. After that, he received 100% O2 from 0952 to 0957 hours. During his 17-minute procedure, Toby's heart rate, respiratory rate, SpO2, ECG rhythm, EtCO2, SAP, DAP, and MAP were monitored constantly, and were entirely normal. There was no indication of hypoperfusion, cardiac arrhythmia, hypoxia, or other abnormalities. Also, and as stated above, Toby had received the same combination of sedation drugs on July 15, 2019, and July 16, 2020, without any postoperative complications.

My review of the medical literature reveals that liver injury from midazolam or propofol is rare in patients with normal preoperative liver function, as was the case here. Just as the specialist at the ER interpreted the ultrasound findings in light of Toby's recent anesthetic event, I based a portion of my treatment plan on his history (i.e. the absence of hepatopathy noted historically).

Based on my physical examination of Toby and review of his chart on August 17, 2021, I respectfully submit that my comprehensive treatment of Toby met the standard of care, and I ask the Board to dismiss this case.

Sincerely,

Elizabeth Munhall, DVM

Douglas A. Ducey
- Governor -



Victoria Whitmore
- Executive Director -

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INVESTIGATIVE COMMITTEE REPORT

TO: Arizona State Veterinary Medical Examining Board

FROM: PM Investigative Committee: Adam Almaraz - Chair
Amrit Rai, DVM
Steven Dow, DVM
Gregg Maura
Justin McCormick, DVM

STAFF PRESENT: Tracy Riendeau, CVT – Investigations
Marc Harris, Assistant Attorney General

RE: Case: 22-131

Complainant(s): Arizona State Veterinary Medical Examining Board

Respondent(s): Elizabeth Munhall, DVM (License: 7667)

SUMMARY:

Complaint Received at Board Office: 5/18/22

Committee Discussion: 10/4/22

Board IIR: 11/16/22

APPLICABLE STATUTES AND RULES:

Laws as Amended August 2018

(Lime Green); Rules as Revised

September 2013 (Yellow)

On August 14, 2021, "Toby," an approximately 8-year-old male Bichon/Maltese mix was presented to Respondent's associate, Dr. Bikson, for a dental cleaning. Blood and urine was collected for testing and revealed the dog was a surgical candidate. The procedure was performed and the dog was discharged later that day.

August 17th through August 20, 2021, the dog was presented to Respondent's premises due to vomiting and not eating. The dog did not improve and blood work revealed elevated liver enzymes.

On August 21, 2021, the dog was presented to a specialist for advanced diagnostics and treatment. After evaluation and an abdominal ultrasound, acute hepatitis was suspected.

Pet owner was noticed and did not appear.

Respondent was noticed and appeared telephonically. Attorney T. Scott King appeared.

The Committee reviewed medical records, testimony, and other documentation as described below:

- Pet owner's narrative: *Pat Johnson*
- Respondent(s) narrative/medical record: *Elizabeth Munhall, DVM*
- Consulting Veterinarian(s) narrative/medical records: *Rebecca Rittenberg, DVM*

PROPOSED 'FINDINGS of FACT':

1. On August 14, 2021, the dog was presented to Respondent's associate, Dr. Bikson, for a dental cleaning. Upon exam, the dog had a weight = 15.4 pounds, a temperature = 100.1 degrees, a heart rate = 130bpm and a respiration rate = 30rpm – all systems were normal except for moderate calculus, plaque and gingivitis. Blood and urine were collected for testing and nothing significant was found – the dog was a surgical candidate. An IV catheter was placed; the dog was pre-medicated with:

- a. Butorphanol 10mg/mL, 0.21mLs IV; and
- b. Midazolam 5mg/mL, 0.21mLs IV.

2. Prior to induction the dog's vitals were taken: T -100.5; HR – 90; and RR – 20. The dog was started on LRS fluids IV and induced with propofol 10mg/mL, 3mLs IV. The teeth were scaled, polished and assessed by Dr. Bikson with a probe. The dog was monitored while under anesthesia – total time approximately 15 minutes. The dog recovered uneventfully and was discharged later that day.

3. Dr. Bikson administered the same medication to the dog, at almost the exact same doses, as she did on the previous two dental procedures. Dr. Bikson did not see the dog again and was subsequently treated by her associates, Dr. Munhall and Dr. Duthie.

4. The pet owner, Ms. Johnson, reported that at discharge she was advised the dog may be a little groggy and nauseous but should be back to normal within 36 hours. Over the next couple of days, the dog was lethargic, not eating and vomiting.

5. On August 15, 2021, there are medical records for an outpatient visit; no notes were created for the reason.

6. On August 17, 2021, the dog was presented to Dr. Munhall for a recheck. Ms. Johnson reported that the dog was vomiting and would not keep any food down. She did try a bland diet. Upon exam, the dog had a weight = 15.4 pounds, a temperature = 101.5 degrees, a heart rate = 120bpm, and a respiration rate = 40rpm. The record reads that tartar on the dog's teeth was found – the dog had a dental 3 days prior. All systems were noted as normal.

7. According to Dr. Munhall, she discussed her findings with Ms. Johnson and the possible causes of gastroenteritis post dental procedure. Possible causes included post-anesthetic reaction vs inflammation vs infectious vs dietary indiscretion vs extra-alimentary disease. Dr.

Munhall stated that she recommended further work-up with blood work and imaging. Ms. Johnson declined the recommended diagnostics based on the fact that the dog had blood work done prior to the dental procedure. Dr. Munhall attempted to explain that things can change quickly even though the labs were normal on the day of surgery. This information was recorded in the medical record.

8. Dr. Munhall discharged the dog with cerenia 24mg, 4-pack; give ½ tablet orally every 24 hours for 5 days. According to Dr. Munhall the client was educated that the dog possibly had a side effect from the medications used during the dental cleaning.

9. On August 18, 2021, due to no improvement, the dog was seen by Dr. Duthie. The pet owner reported that the dog had been vomiting since the dental procedure and passed runny diarrhea twice that day. Upon exam, the dog had a weight = 14.6 pounds, a temperature = 99.7 degrees, a pulse rate = 110bpm, and a respiration rate = 24rpm (vitals recorded under page 4 of 6). Under "Objective" on page 5 of 6 for this date, the dog's vitals recorded were the same as the August 17th examination. Dr. Duthie discharged the dog after administering and prescribing the following:

- a. LRS 150mLs SQ;
- b. Cerenia 0.7mL SQ;
- c. Sulcralfate 1gm, 4.5 tablets; give ½ tablet every 8 hours for 3 days – dissolve tablet and administer one hour before feeding;
- d. Fortiflora, 7 packets; give 1 packet every 24 hours for 7 days; and
- e. Royal Canin Canine GI Low Fat diet.

10. On August 19, 2021, the pet owner called the premises to report that the dog was still lethargic and not eating. She could not get the dog to take the probiotic and would like to discuss doing blood work.

11. On August 20, 2021, the dog was dropped off to Dr. Munhall due to not improving. Upon exam, the dog had a weight = 15 pounds, a temperature = 100.6 degrees, a heart rate = 140bpm, and a respiration rate = 40rpm; mucous membranes icteric and tacky. Dr. Munhall also noted the dog was icteric on the ventral abdomen. She recommended performing blood work and depending on the results, the dog could need additional diagnostics including abdominal radiographs/ultrasound. Ms. Johnson approved blood work.

12. Blood work was performed and revealed increased liver enzymes. Dr. Munhall went over her findings with Ms. Johnson in the lobby. During this time, the pet owner's daughter, Ms. Christensen entered the lobby, raised her voice, and accused Dr. Munhall of killing their dog. Dr. Munhall explained that when the dog was presented on August 17, 2021, she discussed the possible etiologies for the dog's gastroenteritis with Ms. Johnson and recommended further diagnostics; Ms. Johnson declined further work-up and elected supportive out-patient care. Ms. Christensen asked her mother if she declined services; Ms. Johnson could not recall.

13. Dr. Munhall discussed the need for imaging with Ms. Johnson and Ms. Christensen. Ms. Christensen declined imaging and stated they would seek outside care for the dog and would not return to Banfield. Dr. Munhall stated that she recommended the dog undergo imaging and consultation with a radiologist even if not with Banfield. She offered again to perform imaging and Ms. Johnson gave her consent. An AFAST was performed and revealed mild sludge in gall bladder and mild liver enlargement. Dr. Munhall went over her findings with Ms. Johnson and recommended a referral to an Internal Medicine/Infectious Disease specialist. Ms. Johnson stated she would follow up with Phoenix Veterinary Referral & Emergency the next day. The dog was discharged with Denamarin and sulcralfate.

14. On August 21, 2021, the dog was presented to PVRC for advanced diagnostics and evaluation. The dog was initially seen by Dr. Mital and then transferred to Dr. Rittenberg for an abdominal ultrasound. Dr. Rittenberg performed the ultrasound and based on those findings recommended radiographs. Based on the diagnostics, Dr. Rittenberg suspected acute hepatitis and supportive care was initiated.

15. The dog was hospitalized throughout the weekend on IV fluids, Denamarin, N-acetylcysteine, and Cereina.

16. The following day the dog began to eat, was brighter on exam, and the liver enzymes began to improve. Dr. Rittenberg discussed with the pet owner that this was potentially a reaction to the anesthesia from the dental procedure given the values were completely normal pre-anesthesia. Her other differentials were infectious – leptospirosis, cholangiohepatitis – neoplasia, or toxin ingestion. Further workup was declined and the dog was discharged on August 23, 2021.

17. The dog was presented to Dr. Rittenberg on several occasions for recheck. The dog was doing well and was stable.

18. Dr. Rittenberg commented that due to Dr. Bikson performing blood work prior to the dental and used safe, appropriate doses of medications, she suspected that the cause was either an idiosyncratic reaction to midazolam or potentially the dog had an underlying primary liver disease that made it more difficult for the dog to process medications. She advised the pet owner that there were no abnormalities noted on the blood work prior to the dental procedure, therefore there was no way to have predicted the outcome.

COMMITTEE DISCUSSION:

The Committee discussed that they were concerns with communication with respect to the treating veterinarians as well as within the Banfield organization. There was a concern with the length of time - from the time of the dental and then six (6) days later the dog was showing severe icterus – somewhere along the line someone dropped the ball.

On August 18th, Dr. Duthie treated the dog symptomatically and did not indicate that diagnostics should be performed. She dispensed/administered cerenia and sucralfate without knowing what the follow up would be. Cerenia was dispensed the day before and the dog continued to vomit despite receiving cerenia.

There were medical record issues with respect to no documentation of diagnostics being recommended to the pet owner. The Committee could not verify that recommendations for further testing were actually provided. There were things that were overlooked that were not in the best interest of the dog.

Dr. Munhall saw the dog on August 17th and claimed recommendations were made but not documented in the medical record. On the 20th, Dr. Munhall pushed for diagnostics and referral to a specialist. She was told that the dog would be taken to a specialist the following day. However with Dr. Duthie, it did not appear she made the recommendations strongly enough.

With respect to Dr. Munhall, she gave cerenia on the 17th but there was no indication that recommendation for diagnostics were made. The dog was three days post-surgical procedure; had normal blood results prior; and the dog was not doing well.

The Committee more of a concern with Dr. Duthie's care of the dog on the 18th. The pet owner was still reporting the dog was not doing well and it was not impressed upon the owner the importance of performing diagnostics.

COMMITTEE'S PROPOSED CONCLUSIONS of LAW:

The Committee concluded that possible violations of the Veterinary Practice Act occurred.

COMMITTEE'S RECOMMENDED DISPOSITION:

Motion: It was moved and seconded the Board find:

***ARS § 32-2233 (B) (3)** failure to document in the medical record on August 17, 2021 the treatment/diagnostics recommended to the pet owner.*

Vote: The motion was approved with a vote of 4 to 1, Dr. Dow opposed.

The information contained in this report was obtained from the case file, which includes the complaint, the respondent's response, any consulting veterinarian or witness input, and any other sources used to gather information for the investigation.

TR

Tracy A. Riendeau, CVT
Investigative Division

KATIE HOBBS
GOVERNOR



VICTORIA WHITMORE
EXECUTIVE DIRECTOR

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IN ACCORDANCE WITH § A.R.S. 32-2237(D): "IF THE BOARD REJECTS ANY RECOMMENDATION CONTAINED IN A REPORT OF THE INVESTIGATIVE COMMITTEE, IT SHALL DOCUMENT THE REASONS FOR ITS DECISION IN WRITING."

At the January 18, 2023 meeting of the Arizona State Veterinary Medical Examining Board, the Board conducted an Informal Interview in Case 22-131, In Re: Elizabeth Munhall, DVM.

The Board considered the Investigative Committee Findings of Fact, Conclusions of Law, and Recommended Disposition:

ARS § 32-2233 (B) (3) failure to document in the medical record on August 17, 2021 the treatment/diagnostics recommended to the pet owner.

Following the informal interview with Respondent, the Board disagreed with the Investigative Committee recommendation as they did not feel the matter rose to the level of a violation and voted to dismiss the issue with no violation and issue a **Letter of Concern** with respect to not documenting in the medical record the discussion had with the pet owner regarding the treatment plan.

Respectfully submitted this 18th day of January, 2023.

Arizona State Veterinary Medical Examining Board

A handwritten signature in cursive script that reads "Jessica Creager".

Jessica Creager - Chairperson